


## **Memo**

**To:** Select Board  
**From:** Albin D. Voegelé, Town Manager   
**CC:** Karen Richard, CWD Town Commissioner  
**Date:** July 2, 2010  
**Re:** Acquisition of Retail Water Companies

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The below and attached information is in response to questions raised about the Malletts Bay Water Company and Colchester Town Water Company:

1. Statement: "We are taking over liability for an ongoing business and have not had an outside inspection of the infrastructure – no business does that."

Fact: Both systems are generally of a post 1970's era and accordingly consist almost entirely of ductile iron pipe. Corrosion inhibitors were introduced into the water supply in the mid 1980's which effectively controls tuberculation which can reduce the systems flow capacity. As public water systems, in April, 2010, both systems were subjected to a mandatory sanitary survey conducted by the Vermont Department of Environmental Conservation. No significant or minor sanitary deficiencies were identified. Further, the state recognized the systems as having outstanding performance and therefore reduced the frequency of future inspections from once every three years to five year intervals. In summary, these are comparatively very young systems in very good condition. The results of their Sanitary Surveys are in enclosed as Attachment #1.

2. Statement: "...concerned about future liabilities for maintaining and repair..."

Fact: Champlain Water District is giving the Town with the acquisition of the two water companies a Reserve Fund for capital repairs to these systems. These retail companies will be operated as an Enterprise Fund. Their operational and capital costs will not be borne by the Town's taxpayers – only the users of this water supply service.

Statement: "This reminds me of FD 1 and the sewer system agreement. How many times have we asked the question, 'What the heck were they thinking???. This seems to be a similar deal."

Fact: Select Board minutes during 1985 are extremely informative. It appears the Select Board and FD#1 were on a course of expanding the FD#1 treatment facility. Minutes stop and there rest is known by verbal history.

There are two relevant issues here. First, the decision by the Town to decommission the plant and convert it to a pumping station, and 2) entering into an agreement with FD No. 1 effectively exempting them from any future debt related to the Town's future wastewater expansion efforts.

With CWD, we are indemnifying them from any future liability associated with the two retail water systems. The relationship between the Town and FD No. 1 compared to the Town and CWD is very different. For example, FD No. 1 is a customer of the Town's where the Town continues to provide a service to them for which all customers should be fully and equitably paying for and have responsibility for. This is a very different relationship than what exists with CWD.

3. Statement: What are the "...long term relations with fire District 2 and do not see this move, without any formal discussion with them, as being not a good way to do business.

Fact: The immediate purpose of acquiring these two water companies is to give the Town, as a municipality, a place at the table to bring water storage capacity to Severance Corners which is not in FD#2's territory. (In fact, this opportunity was discussed unofficially with a member of the District staff to understand the "possibility". It was learned that the engineering of these two water supply systems would be problematic at Severance Corners.)

Efforts to work with FD#3 have been ongoing for three years and the Select Board has been continuously informed of these negotiations. As part of this discussion, the acquisition of the two retail water companies has been on the table without objection since the process began to secure water storage capacity for Severance Corners. As part of the "bridging" to assure capacity for the current development at Severance Corners, the Town has been using the reserve "capacity" of the retail companies to meeting State requirements on the premised agreement that the Town would take ownership of these retail companies.

4. Statement: It is understood "...that the Malletts Bay Water Company is within the geographic service area of Fire District 2 – so are we running a water company in competition with them?" Have issues with town getting into water business, would prefer that ownership and operation go to FD#2 (especially for the Malletts Bay Company which is their territory).

Fact: The Malletts Bay Water Company has retail services in geographic areas of Fire Districts 2 and 3. Most of the service area is in FD#3. Only a very small portion of the Malletts Bay Water Company is within the FD#2 Service area. The majority of this system is located within the boundaries of FD#3, and the system was deeded to the CWD in 1986. See Attachment #2. Legally, the Town can offer retail water services within a fire district. See Attachment #3

5. Statement: "Might be able to live with Exit 16 from the standpoint that we are already billing these users for sewage."

Fact: Brookside project is served by the Malletts Bay Water Company and has municipal sewers owned and operated by the Town of Colchester. Accordingly, the Town currently provides sewer billing to this area. The development at Severance Corners is being provided with waste water services owned and operated by the Town. Providing water under the Town's auspices is consistent with long term goals of Town.

6. Statement: "The Town has no staff to service waterworks ... so who is going to do the service work beginning with the 1<sup>st</sup> break tomorrow."

Fact: The Town's ownership of these companies will not change the operations of these companies. All service and billing will continue to be provided by the Champlain Water District. Over the course of the next several years the DPW will learn "the business" and prepare one DPW employee to successfully secure a "Distribution Class IV license" needed by the Town to operate a water supply system independently if it chooses.

As the Town looks out to its future and incremental growth, DPW will need to add staff for a storm water utility. Combining this person-power need with water distribution allows the Town, operating as an enterprise fund, to move forward on its goals to better serve and meet the needs of the Town of Colchester over the long haul without adding to its general fund obligations.

7. Statement: "Which law firm has reviewed the contract and said ok to sign, do we have that in writing? Can we have a copy of their analysis?"

See Attachment #4

8. Statement: "The water tank at Exit 16 – current capacity and how much goes to Colchester?"

Fact: There are two water tanks at Water Tower Hill, both having a capacity of 850,000 gallons for a total storage capacity of 1.7 million gallons. The current breakdown of allocation is as follows:

CFD No. 3	243,000gals.
CFD No. 1	162,000 gals.
CWD Retail	175,000 gals.
Winooski	729,000 gals.
Essex	391,000 gals.

9. Statement: "The proposed rebuild, total capacity and how much goes to Colchester?"

Fact: The proposed expansion provides an additional 325,000 gallons.  
This additional allocation would be allocated as follows:

CFD No. 3	220,000 gals.
CFD No. 1	24,000 gals.
CWD Retail	81,000 gals.

10. Statement: Estimated cost to rebuild, how much gets paid by Growth Center, who pays the balance, have they all agreed? Time table for rebuild?

Fact: Estimated cost to rebuild is \$1.8 million.

- \$950,000 expected in TIF revenues
- Balance is paid by CFD No. 3, CFD No. 1, Malletts Bay Water Co., Colchester Town Water Co. and CWD.
- Parties have agreed in concept, however FD#3 has indicated they can not afford their share. Diverting approximately 53% of the project costs to the TIF District is expected to significantly help with this issue.
- The water storage tank would be built within the next 1 to 2 years.

11. Statement: "Does Champlain Water run P&L's for the two water companies? Can we get copies for last 3 years? We have seen overall financials and the district has been losing money."

See Attachment #5

12. Statement: Do we know if the water companies will need rate increases in the near future? Wouldn't that do wonders for town budget vote if we take things over and have to raise rates?

Fact: As an enterprise fund utility, it would be reasonable to expect that a periodic rate increase will be needed similar to the Town's sewer system. The impact of such rate increases on the Town budget would likely be similar to the impact created by the Town's sewer rates being periodically increased. See Attachment#6 for existing rates.

## **Attachment # 1**



**Vermont Department of Environmental Conservation  
Water Supply Division**

*Agency of Natural Resources*

Old Pantry Building [phone] 802-241-3400  
103 South Main Street [in-state] 800-823-6500  
Waterbury, VT 05671-0403 [fax] 802-241-3284  
[www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org)

May 26<sup>th</sup> 2010

Malletts Bay Water System  
Attn. Mr. Jim Fay  
403 Queen City Park Rd  
S Burlington VT 05403

Re: The Sanitary Survey of the Malletts Bay Water System a Public Community Water System, Colchester, WSID #20333

Dear Mr. Fay,

A sanitary survey of the Malletts Bay Water System (the Water System) was conducted on April 20<sup>th</sup> 2010. Rob Farley represented the Vermont Department of Environmental Conservation, Water Supply Division (the Division), and Jay Nadeau represented the Water System. The Water System is regulated as a consecutive Public water system, which is one of 12 municipal consecutive Public Water Systems that receive its drinking water from Champlain Water District (CWD) Water System (WSID #5092). No additional treatment of the water is provided prior to distribution to the users. The Water System was issued a full Permit to Operate (PTO) on June 15<sup>th</sup> 2009 which will expire on July 1<sup>st</sup> 2013.

No significant or minor sanitary deficiencies were identified during the on-site inspection or files review completed as part of this sanitary survey. As allowed by the Interim Enhanced Surface Water Treatment Rule (IESWTR), Special Primacy Requirements 40 CFR 142.16, the Division recognizes the Malletts Bay Water System as having Outstanding Performance. Consequently, the Division is reducing the frequency of the Class I - comprehensive sanitary survey inspections from once every 3 years to an interval of up to once every 5 years. The Division retains the right to conduct Class II sanitary survey inspections, to be scheduled and conducted on an as-needed basis.

A Class II sanitary survey is a limited on-site survey. This survey may include, but is not limited to, specific water system component inspections, such as: treatment, storage, pumping facilities or controls, operations and maintenance procedures inspections, investigatory (complaint-related) inspections, Class I follow-up inspections, or inspections conducted as a result of a compliance issue and/or enforcement related action. A Class II survey is not a substitute for a Class I comprehensive sanitary survey which evaluates all water system components and operations and maintenance procedures of the Water System.

Mr. Jim Fay  
6/30/2010  
Page 2 of 2

I appreciated Jay's time while conducting the sanitary survey of the Malletts Bay Water System. If you have any questions or would like to discuss anything in this survey report please contact me at the address above, 800-823-6500 (in State), (802) 241-3412 (direct line), or email [rob.farley@state.vt.us](mailto:rob.farley@state.vt.us). The Vermont WSR and any necessary forms are available online at [www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org).

Sincerely

Robert G. Farley,  
Systems Specialist / Hydrogeologist

C. Jean Nicolai, Chief, Operations and Compliance Section Manager, WSD  
Tim Raymond, System Operations Manager, Water Supply Division (letter only)  
Julie Hackbarth, Compliance and Certification Supervisor, WSD  
WSID File #20333  
WSID File #5092

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May 26<sup>th</sup> 2010

Colchester Town Water System  
Attn. Mr. Jim Fay  
403 Queen City Park Rd  
S Burlington VT 05403

Re: **The Sanitary Survey of the Colchester Town Water System** a Public Community Water System, Colchester, WSID #5552

Dear Mr. Fay,

A sanitary survey of the Colchester Town Water System (the Water System) was conducted on April 20<sup>th</sup> 2010. Rob Farley represented the Vermont Department of Environmental Conservation, Water Supply Division (the Division), and Jay Nadeau represented the Water System. The Water System is regulated as a consecutive Public water system, which is one of 12 municipal consecutive Public Water Systems that receive its drinking water from Champlain Water District (CWD) Water System (WSID #5092). No additional treatment of the water is provided prior to distribution to the users. The Water System was issued a full Permit to Operate (PTO) on June 15<sup>th</sup> 2009 which will expire on July 1<sup>st</sup> 2013.

No *significant or minor* sanitary deficiencies were identified during the on-site inspection or files review completed as part of this sanitary survey. As allowed by the Interim Enhanced Surface Water Treatment Rule (IESWTR), Special Primacy Requirements 40 CFR 142.16, the Division recognizes the Colchester Town Water System as having Outstanding Performance. Consequently, the Division is reducing the frequency of the Class I - comprehensive sanitary survey inspections from once every 3 years to an interval of up to once every 5 years. The Division retains the right to conduct Class II sanitary survey inspections, to be scheduled and conducted on an as-needed basis.

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Mr. Jim Fay  
6/30/2010  
Page 2 of 2

I appreciated Jay's time while conducting the sanitary survey of the Colchester Town Water System. If you have any questions or would like to discuss anything in this survey report please contact me at the address above, 800-823-6500 (in State), (802) 241-3412 (direct line), or email [rob.farley@state.vt.us](mailto:rob.farley@state.vt.us). The Vermont WSR and any necessary forms are available online at [www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org).

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WSID File #5552  
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*CHAMPLAIN WATER DISTRICT WAS THE FIRST WATER SUPPLIER IN THE NATION TO RECEIVE THE "EXCELLENCE IN WATER TREATMENT AWARD" FOR COMPLETION OF ALL FOUR PHASES OF THE PARTNERSHIP FOR SAFE WATER PROGRAM*

An independent eight-person team performed Champlain Water District's (CWD) onsite Phase IV Comprehensive Performance Evaluation during the week of May 17, 1999. This (3) day onsite evaluation encompassed fifty separate assessment parameters in the areas of facility design, and associated administrative, operational, and maintenance practices and capabilities. The review was conducted to identify any factors that may be adversely impacting the water treatment facility's capability to achieve continuous optimal performance protective of public health. Once potential performance limiting factors are identified, they are classified according to the following guidelines:

A = Major effect on a long term repetitive basis

B = Moderate effect on routine basis, or major effect on a periodic basis

C = Minor effect

Not only did the Champlain Water District "pass" the Comprehensive Performance Evaluation, the Assessment Team stated that CWD was the first water utility, since protocol inception in 1988, that did not have any performance limiting factors identified during the extensive onsite evaluation. Champlain Water District is Vermont's largest regional public water supplier, serving 68,000 people in twelve municipal water systems in Chittenden County. CWD's receipt of the first "Excellence in Water Treatment Award" in the country is a culmination of ten years of staff effort. Following water treatment upgrades beginning in 1989 to further protect public health, CWD has extensively researched optimization of its upgraded water treatment processes. CWD has also made numerous regional and national presentations on its process optimization efforts, with many of these papers being published in both the New England Water Works (NEWWA), and the American Water Works Association (AWWA) Journals.

CWD was the fifth water utility in the country to receive recognition for successful completion of the Program's Phase III, Self-Assessment requirements, in 1997. CWD was recognized as the first water supplier in the nation to successfully complete all four phases of the Partnership for Safe Water Program during Opening Ceremonies of the New England Water Works Annual Conference on September 20, 1999 at the Sheraton Hotel and Conference Center in South Burlington, VT. CWD was also recognized for this achievement at AWWA's Water Quality Technology Conference on November 1, 1999, in Tampa, Florida. In June 2004 CWD was presented with the Five Year Anniversary Partnership for Safe Water Excellence in Treatment Award, in Orlando, FL, at the AWWA Annual Conference for continuing to meet all Phase IV requirements on an annual reporting basis. As of 2009, there are only five other water treatment facilities in the U.S. that have attained this "Excellence in Water Treatment" status which is the pinnacle of treatment optimization for public health protection. For the past ten years since 1999, CWD has maintained this award status through successful submission of an annual report that is reviewed for water quality test results, as well as the demonstration and documentation of operational tenacity toward continuous quality improvement as required by the Partnership for Safe Water program.

The *Cryptosporidium* outbreak in Milwaukee in 1993 certainly raised the awareness of the susceptibility of drinking water to protozoan contamination. Many water utilities began a critical review of their operating procedures related to protecting the public from microbial pathogens. Formation of the voluntary Partnership for Safe Water Program in 1995 allowed a standardized procedure to be applied in the assessment of surface water treatment facilities on a national scale. It was equally important for the regulatory community and water suppliers to proactively work together on this *Cryptosporidium* threat, realizing that federal legislation was not the immediate solution, due to the analytical difficulties in reliably testing, and enumerating the viability of this specific organism.

Presently, the Partnership for Safe Water Utility membership (January 2009) collectively serves a combined population of more than 85 million people, or nearly two-thirds of U.S. citizens served by surface water sources.

The Partnership for Safe Water is sponsored by the following major drinking water organizations:

- United States Environmental Protection Agency (EPA)
- American Water Works Association (AWWA)
- Water Works Research Foundation (WRF)
- Association of State Drinking Water Administrators (ASDWA)
- Association of Metropolitan Water Agencies (AMWA)
- National Association of Water Companies (NAWC)

The goals of the Partnership for Safe Water include:

1. Improved public health protection above and beyond EPA regulations
2. Cooperative partnering between regulatory agencies, water suppliers, and the public.
3. Recognition for supplying a high quality drinking water with tenacity toward improved public health protection

The four phases of the Partnership Program are as follows:

- I. Written commitment to program requirements for Phases I, II, and III
- II. Collection of required water quality data in standardized Partnership format
- III. Submit utility Self Assessment Report to be reviewed by Partnership's Performance Effectiveness Assessment Committee
- IV. Final "voluntary" phase requirements include an assessment of the participating water utility by an independent team of investigators, following the updated Comprehensive Performance Evaluation protocol, which is part of the National Composite Correction Program that has been in place since 1988.



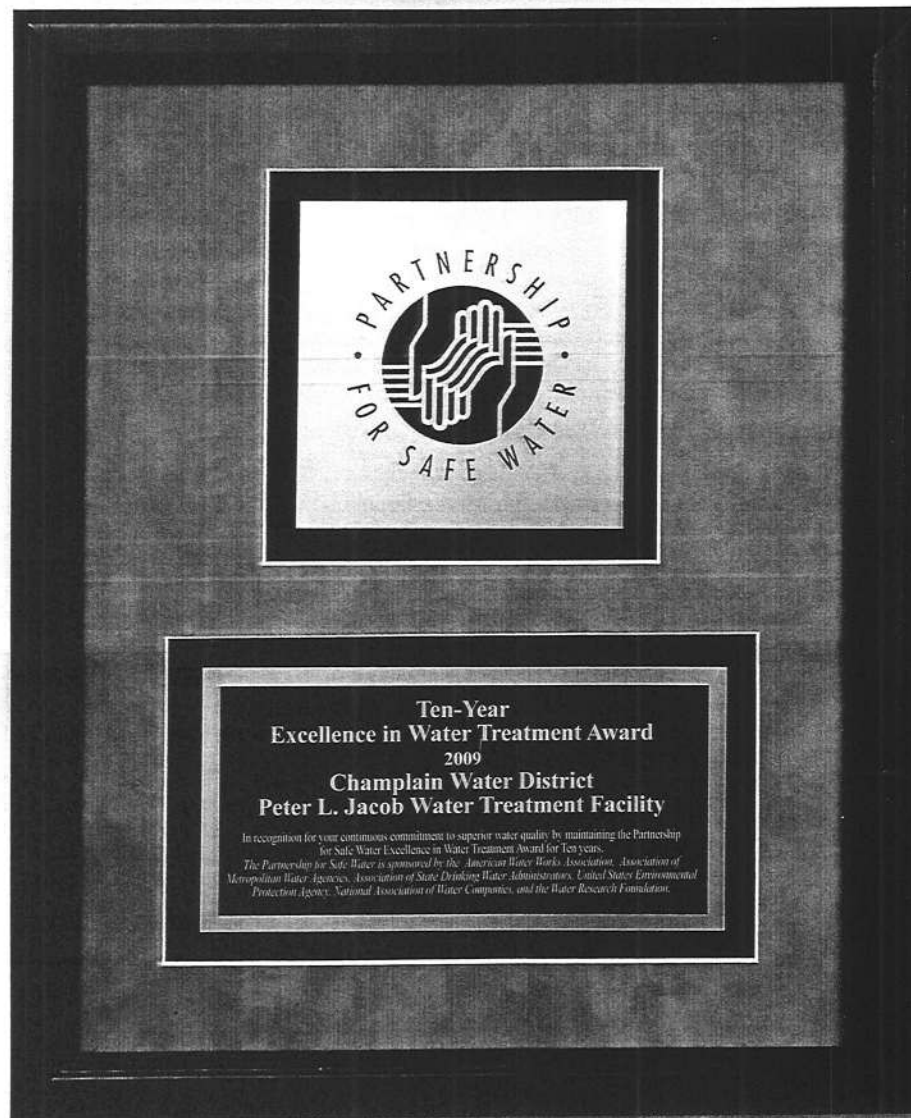
# Champlain Water District

Water Quality 2010



PWS ID#: VT0005092

**Safe Drinking Water All the Way to Your Tap**



**FIRST IN THE NATION  
10 YEAR EXCELLENCE IN WATER TREATMENT AWARD!**

In 2009, Champlain Water District's Peter L. Jacob Water Treatment Facility maintained its high degree of treatment process optimization and continued its 10th straight year as the first water utility in the country to receive USEPA's Excellence in Water Treatment Award from the Partnership for Safe Water. To date, a total of 6 water suppliers in the U.S. have attained this pinnacle of public health protection. We invite school and community groups to visit our treatment facility, view this prestigious award, and learn about their drinking water "from source to tap." Water Quality 2010 reports data from calendar year 2009.

The Champlain Water District (CWD) works very hard to assure safe, high quality drinking water is delivered to its customers. We accomplish this by:

- protecting the Shelburne Bay watershed as the secluded, deep water source that supplies the water,
- treating the water with state-of-the-art filtration, disinfection and corrosion control at the Peter L. Jacob water treatment plant,
- assuring corrosion control and disinfection by-product control throughout the county-wide distribution system.

This year's Water Quality Report focuses on CWD's 10 year Excellence in Water Treatment Award. **Please turn to the center pages of this report to learn more.**

The water that CWD provides throughout Chittenden County - as far North as Milton, as far East as the Village of Jericho, and as far South as Shelburne - is of the highest quality and serves many uses for CWD's 68,000 customers and many of the area's major employers such as IBM and Husky.

## Regulatory Corner

### Maximum Residual Disinfectant Level (MRDL)

### Maximum Contaminant Level (MCL)

### Treatment Technique

### Regulation of Contaminants




## What are the USEPA regulations?

CWD's philosophy has always been to go beyond Federal and State requirements to protect public health as we continue to meet all present Federal and State water quality standards. In order for our customers to understand these standards, there are some important USEPA definitions to learn:

- ▶ **Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of drinking water disinfectant below which there is no known or expected risk to health.
- ▶ **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant maintains sanitary quality. The MRDL for Monochloramine and Free Chlorine = 4.0 mg/L.
- ▶ **Maximum Contaminant Level (MCL)** - the highest level of a contaminant that is allowed in drinking water.
- ▶ **Maximum Contaminant Level Goal (MCLG)** – level of a contaminant in drinking water below which there is no known or expected risk to health.
- ▶ MCLs and MCLGs are set by USEPA after extensive research and public comment. MCLs define a safe water supply by setting levels a trace contaminant may not exceed, MCLs are set as close to the MCLG as feasible using the Best Available Technology.
- ▶ **Action level**- the concentration of a contaminant which triggers treatment or other requirements that a water system must follow.
- ▶ **90th Percentile** - Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).
- ▶ **Nephelometric Turbidity Unit (NTU)** - NTU is a measure of the clarity of water. Turbidity in excess of 5 NTU is just visually noticeable to the average person.
- ▶ **Parts per million (ppm) or Milligrams per Liter (mg/l)** - one penny in ten thousand dollars or 1 second in 11.6 days.
- ▶ **Parts per billion (ppb) or Micrograms per Liter (ug/l)** - one penny in ten million dollars or 1 second in 32 years.
- ▶ **Picocuries per liter (pCi/l)**- a measure of radioactivity in water.
- ▶ **Treatment Technique**- a USEPA requirement for water suppliers to install and optimize water treatment processes that are intended to reliably remove a required percentage for a specific possible contaminant.
- ▶ Treatment techniques are set by USEPA when monitoring technology cannot precisely detect certain contaminants. In these cases, a surrogate measurement is used to determine compliance in a reliably operated treatment facility. An example is the use of turbidity to indicate microbial protozoan removal in a treatment plant. (Turbidity is a good indicator of the effectiveness of the disinfectant, the filtration, and the general quality of the water.)
- ▶ USEPA wants you to know that the presence of certain contaminants in drinking water does not necessarily indicate that the drinking water poses a health risk. USEPA and the State of Vermont prescribe regulations which limit the amount of certain contaminants in water provided by the public water system. CWD monitors for all regulated trace contaminants (including naturally occurring radioactivity) on specific schedules as required by USEPA. USEPA never expresses results of water monitoring as "zero". Scientifically, it is impossible to measure "zero". Therefore, USEPA requires every trace substance to be analyzed using an approved method with a required detection limit. When no trace substance is found, then it is expressed as "none detected = ND."
- ▶ CWD monitors for these trace chemicals even though they are extremely unlikely to be present in CWD's source because of the characteristics of CWD's deep water Shelburne Bay source. CWD has monitored 93 trace substances for many years according to the schedules established by the USEPA and has received all non-detect test results for 2009. CWD's non-detect monitoring results are not specifically listed in this report due to space limitations. **To receive a listing of these specific undetected contaminants – contact CWD and ask for the latest specific non-detect report.**

## Water Characteristics

### Immunocompromised Persons read this!

USEPA requires  all water systems, regardless of the type of source and treatment, to provide this information.

### Sanitary quality

### Source quality

### Disinfectant-by-product quality

### Aesthetic quality



In providing a safe, high quality water there are several characteristics that a water supplier should meet:

1. Sanitary quality - bacteriological, viral and protozoan quality that is assured by consistent and efficient filtration, and, by primary free chlorine disinfection and secondary monochloramine disinfection. This is the primary goal of any water supplier as consumers cannot reliably achieve this protection with home treatment devices.

CWD wants immunocompromised persons (ICP's) to know that they may be particularly at risk from infections and should seek advice from their health care providers.

ICP's include:

1. Those undergoing chemotherapy or organ transplants.
  2. Those with AIDS / HIV or other immune system disorders.
  3. Some elderly.
  4. Infants.
2. Source quality - the cleaner a water supplier's source, the more effective a water supplier's treatment process is at producing high quality water. Common sense tells us that if you have high quality untreated water going into a facility, then you will have the highest quality finished water leaving that facility. This is important for sanitary and trace chemical considerations. Home owners cannot reliably treat poor quality source waters on their own.

In general, USEPA wants you to know that, depending on the condition of any water source and its watershed area, some untreated source water may be impacted by the following contaminants:

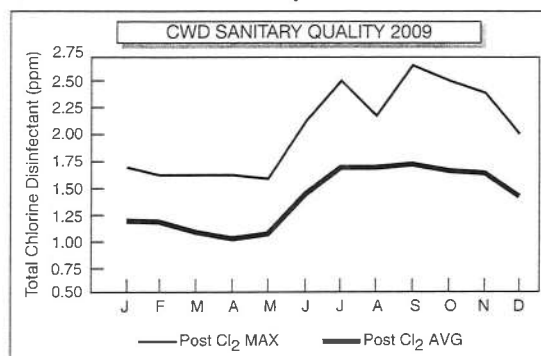
1. Biological (Viruses & Bacteria).
  2. Inorganic (Metals & Salts).
  3. Synthetic organic chemicals (Pesticides, Herbicides, Volatile Organic Chemicals).
  4. Naturally occurring radioactivity.
3. Disinfectant-by-product quality - primary disinfection with free chlorine is essential to assure sanitary water. This disinfection process does create by-products (DBPs) that impact the finished water. All water suppliers must deal with the balancing of sanitary benefits and DBP risks from primary free chlorine disinfection. DBPs may be reduced by the consumer using treatment devices approved by NSF International for TTHM reduction, and only if these devices are installed, used and continually maintained according to manufacturer's instructions.
  4. Aesthetic quality - aesthetic considerations also determine the acceptability of a water supply. Distribution system management may impact water taste and odor. Taste/odor is relatively easy to reduce by the consumer using properly installed and maintained NSF approved treatment devices.

USEPA believes that drinking water, including bottled water, may reasonably be expected to contain at least trace amounts of contaminants. More information about contaminants and associated health risks can be obtained by calling CWD or the Safe Drinking Water Hotline.

## CWD's SANITARY QUALITY

When evaluating a high quality water you should look for:

- a) a monochloramine residual of at least 0.1 mg/L but not more than 4.0 mg/L (MRDL),
- b) median heterotrophic plate count (HPC) of less than 500 cfu/ml, and
- c) total coliform absent 95% of the time.
- d) less than 0.10 ntu turbidity from each filter.



This graph shows that CWD's monochloramine disinfectant residual stays consistent throughout the year and is well below the USEPA allowable level for monochloramine residual of 4.0 mg/L.

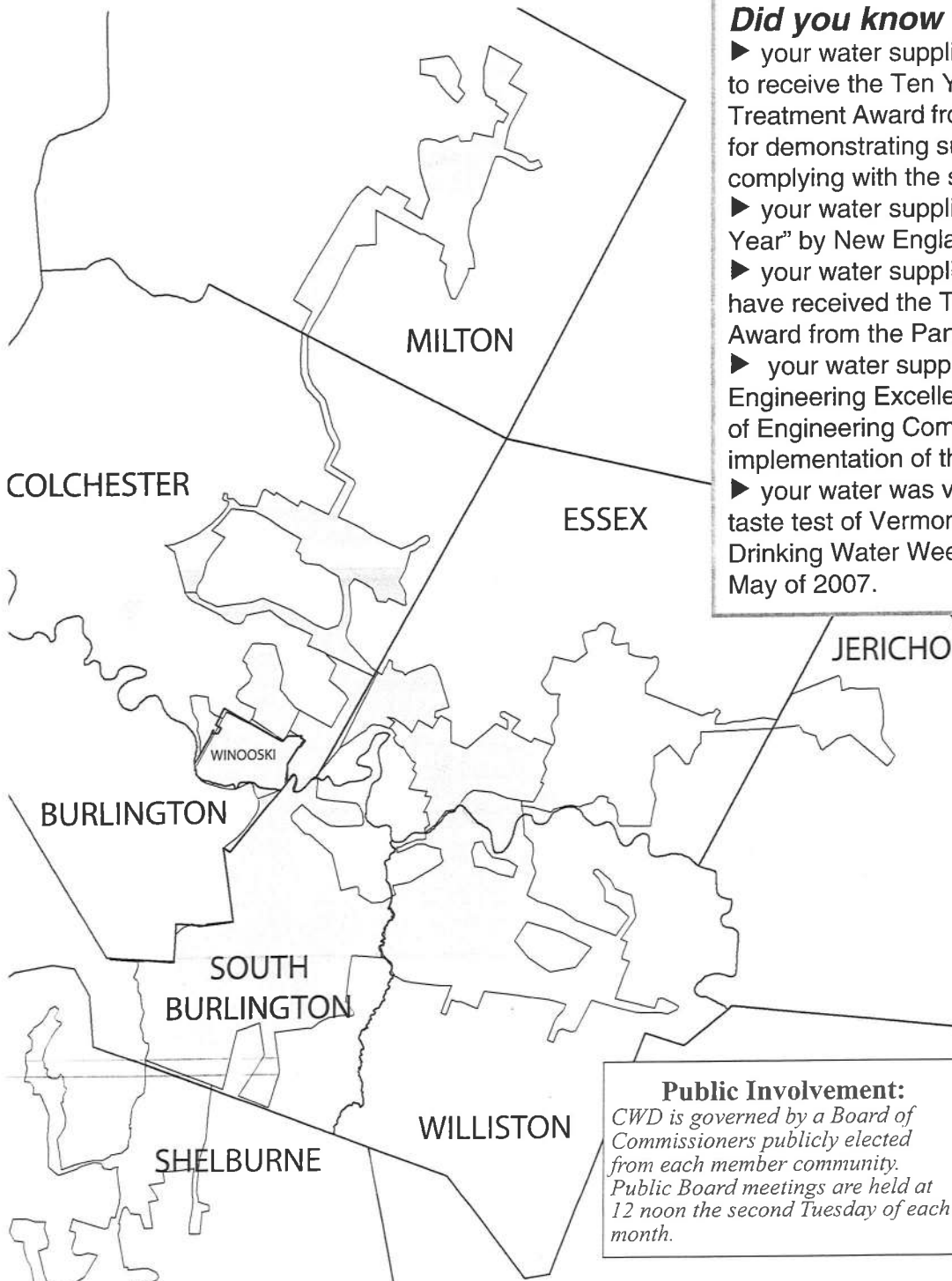
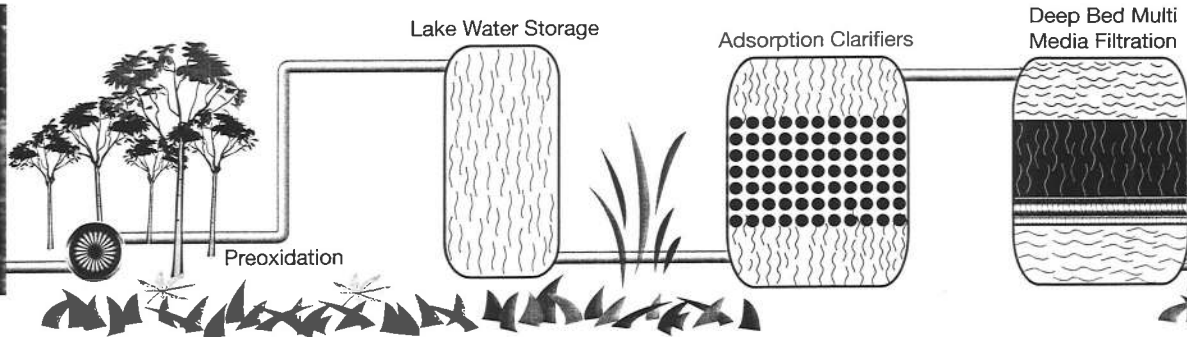
The data from the table below shows that, even during warm water conditions experienced during June through October, the sanitary quality of CWD water is excellent with very low HPC levels and total coliforms absent 100% of the time.

2009 MONTH	AVG / WATER TEMP / DEG-F	MEDIAN HPC COUNT (STD=<500)	TOTAL COLIFORM (STD ABSENT 95% OF THE MONTH)
January	43	4	Absent 100%
February	41	4	Absent 100%
March	39	3	Absent 100%
April	43	4	Absent 100%
May	49	6	Absent 100%
June	54	5	Absent 100%
July	59	7	Absent 100%
August	63	5	Absent 100%
September	62	11	Absent 100%
October	59	4	Absent 100%
November	56	9	Absent 100%
December	51	3	Absent 100%

### Violations that occurred during the year:

Champlain Water District had no regulatory violations during the year.

# CHAMPLAIN WATER DIS



## Did you know ?

- ▶ your water supplier was the first in the nation to receive the Ten Year Anniversary Excellence in Treatment Award from the Partnership for Safe Water for demonstrating superior water quality each year in complying with the safe drinking water act.
- ▶ your water supplier was named 2007 "Utility of the Year" by New England Water Works Association.
- ▶ your water supplier was one of 30 in the nation to have received the Ten Year Anniversary Director's Award from the Partnership for Safe Water Program.
- ▶ your water supply received the Grand Award for Engineering Excellence from the American Council of Engineering Companies for the design and implementation of the secondary disinfection project.
- ▶ your water was voted "Best tasting" in a blind taste test of Vermont officials as part of the National Drinking Water Week celebration in Montpelier in May of 2007.

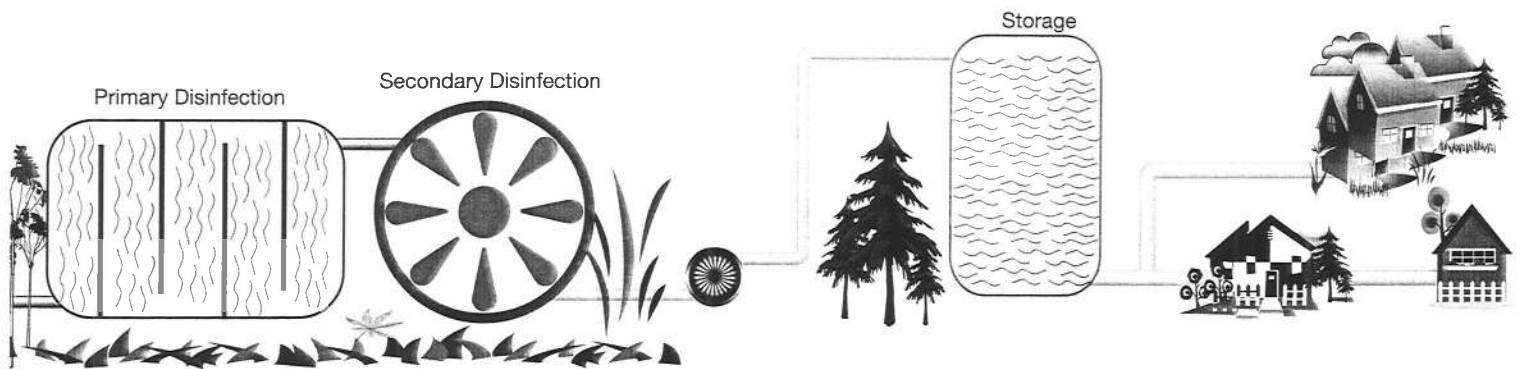
## Service areas include:

- Shelburne
- South Burlington
- Williston
- Essex Junction
- Essex
- Jericho Village
- Milton
- Winooski
- Mallets Bay Water Company
- Colchester Town
- Colchester Fire District #1
- Colchester Fire District #3

## Public Involvement:

*CWD is governed by a Board of Commissioners publicly elected from each member community. Public Board meetings are held at 12 noon the second Tuesday of each month.*

# RICT WATER PROCESS



## 10 YEAR EXCELLENCE IN WATER TREATMENT AWARD!

“In recognition for your continuous commitment to superior water quality by maintaining the Partnership for Safe Water Excellence in Water Treatment Award for Ten years...”

The Partnership for Safe Water is sponsored by the  
American Water Works Association,  
Association of Metropolitan Water Agencies,  
Association of State Drinking Water Administrators,  
United States Environmental Protection Agency,  
National Association of Water Companies,  
and the Water Research Foundation.

*The Partnership for Safe Water is a national initiative developed by the U.S. EPA and other water organizations representing water suppliers that strive to provide drinking water that is superior to the federal quality requirements.*

*Phase IV is the highest possible level of performance that can be achieved in the four-phased Partnership program, and signifies optimized plant performance. Champlain Water District has maintained the Excellence in Water Treatment Award for ten years.*

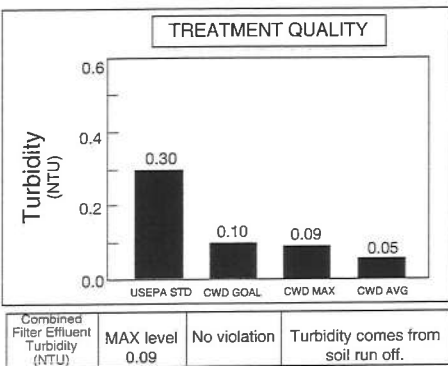
*The Partnership includes more than 400 water treatment facilities, collectively serving more than 85 million people, representing 60% of the US population served by surface water. Each utility has committed to enhancing drinking water quality and operational excellence in water treatment. As members of the Partnership, utilities make a pledge to their communities to improve their treatment operations to reduce the risk of exposure to microbial contaminants. By making this commitment the member utilities' treatment practices undergo a rigorous review developed by national experts, including a four-phased self-assessment and peer review process.*

## CWD'S SANITARY QUALITY (continued)

Protozoan and virus protection is provided through optimized filtration and primary disinfection. When evaluating a water supplier for proper protozoan and virus treatment, the combined filtration and post-disinfection processes should remove and destroy 99.5% of *Cryptosporidium* oocysts, 99.9% of *Giardia* cysts and 99.99% of viruses. The treatment removal/inactivation graph below shows that CWD surpasses these treatment requirements.

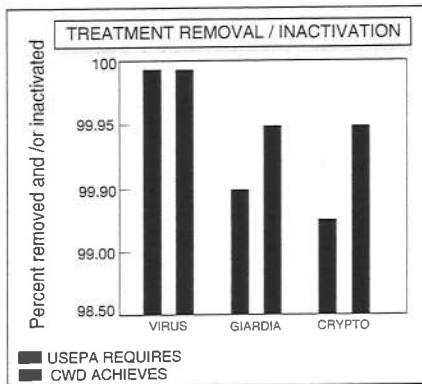
USEPA believes some people may be more vulnerable to contaminants in drinking water than the general population. *Cryptosporidium* and *Giardia* are microbial parasites that can be found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. This is why CWD continues to upgrade and optimize its water treatment processes. USEPA's turbidity standard is for all the filters combined. CWD's turbidity goal is much stricter and is for each filter.

CWD's continued use of state of the art laser particle counting technology continues to allow each process filter to be optimized at removing particles larger than 2 microns (about 1/13,000th of an inch) in size.



## LONG-TERM 2 (LT2) ENHANCED SURFACE WATER TREATMENT RULE (ESWTR) GIARDIA AND CRYPTOSPORIDIUM TESTING

Beginning in April 2008, CWD conducted monthly monitoring for *Giardia* and *Cryptosporidium* as required under USEPA's LT2 ESWTR Rule. CWD has been monitoring for *Giardia* and *Cryptosporidium* since 1989.



All CWD inactivation is performed using free chlorine as primary disinfectant.

LAKE WATER RESULTS	GIARDIA RESULTS		CRYPTOSPORIDIUM RESULTS	
	LAKE WATER	FINISHED WATER	LAKE WATER	FINISHED WATER
January	None Detected	Not Applicable	None Detected	Not Applicable
February	None Detected	None Detected	0.09 Oocysts/L	None Detected
March	0.18 cysts/L	None Detected	None Detected	None Detected
April	None Detected	Not Applicable	None Detected	Not Applicable
May	None Detected	Not Applicable	None Detected	Not Applicable
June	None Detected	Not Applicable	None Detected	Not Applicable
July	None Detected	Not Applicable	None Detected	Not Applicable
August	None Detected	Not Applicable	None Detected	Not Applicable
September	None Detected	Not Applicable	None Detected	Not Applicable
October	None Detected	Not Applicable	None Detected	Not Applicable
November	None Detected	Not Applicable	None Detected	Not Applicable
December	None Detected	Not Applicable	None Detected	Not Applicable

Finished water results for February & March 2009 (i.e., worst case during the spring snow melt) none detected.

CWD conducted several studies with Dr. Tom Manley of Middlebury College to determine the best strategic locations for our additional source water intake pipe. Results of these studies showed that CWD's 75 feet deep intake location to the northeast of White's Ridge along the Shelburne Bay Deep underwater canyon was the best location for a redundant intake pipe to assure adequate quantity and high quality of water into the future. This additional intake was constructed and sunk into place in the fall of 2007. This new 'south intake' was placed into service along with the existing 'north' intake in July 2008.

## CWD'S SOURCE QUALITY

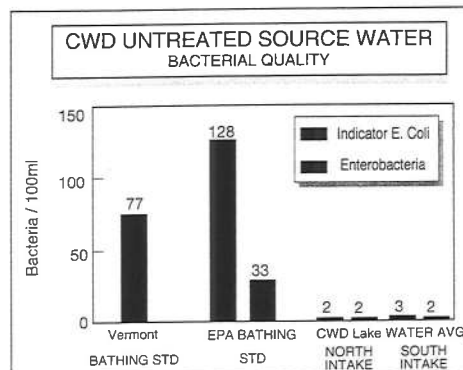
Many of the people who live along Shelburne Bay, and the streams flowing into Shelburne Bay, do not realize that their homes, yards, and parks are within an area called the "Shelburne Bay Watershed." By protecting the Shelburne Bay watershed, residents help protect the quality of CWD's deep Shelburne Bay source. The streams that make up this watershed include the Laplatte River, Potash Brook, North Brook, Munroe Brook, McCabes Brook, and Bartlett Brook. CWD's water source is far off shore in Shelburne Bay. CWD invested in this intake source area because it is well away from potential sources of contamination. Shelburne Bay holds 33 billion gallons of water.

CWD's Watershed Management Program for Source Protection has the following objectives:

- Characterize watersheds (all the rain and snow melt that enter a specific stream or river come from an area that is called that stream's "watershed") and the Shelburne Bay Source.
- Build partnerships toward improving lake water quality.
- Educate people about Shelburne Bay's role in providing drinking water.
- Limit degradation of the CWD source water.

In a major initiative addressing specific stormwater needs, Champlain Water District continues managing a grant program for Chittenden County municipalities that assists in the construction of stormwater control measures where they are needed the most. \$3.0 Million has been made available through this program through the efforts of Vermont's Senate delegation.

For more info on stormwater measures go to  
[www.smartwaterways.org](http://www.smartwaterways.org)



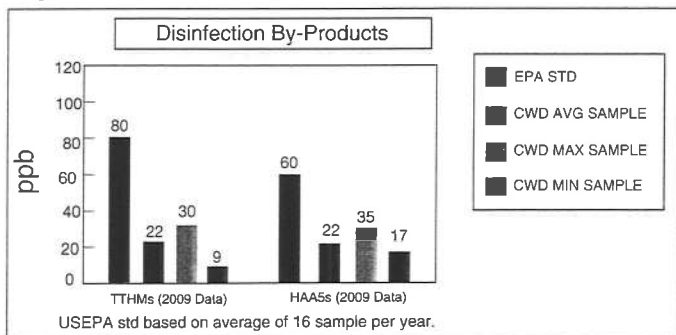
Add Up to Cleaner Water

This graph shows how CWD untreated source water contains very low numbers of sanitary bacterial indicators even when comparing with levels USEPA says are allowable in bathing beach water. Of course, CWD finished water is free of any bacteriological indicator organisms.

Champlain Water District continues to work with the Laplatte Watershed Partnership to enhance stewardship within the Laplatte River Watershed. The Laplatte River Watershed is located in the Towns of Hinesburg, Shelburne, Charlotte, Richmond, and Williston. The river is the largest stream in the Shelburne Bay Watershed.

## CWD's DISINFECTANT BY-PRODUCT QUALITY

CWD maintains high quality drinking water, free from pathogenic (dangerous) bacteria and protozoa while, at the same time, keeping disinfectant by-products (DBPs) to a minimum. USEPA has implemented a more restrictive new standard for two groups of compounds – know as total trihalomethanes (TTHMs) and total haloacetic acids (HAA5s). CWD is fortunate to have extremely low natural levels of bromide in its source water as the brominated DBPs have been implicated as contributing the most risk.



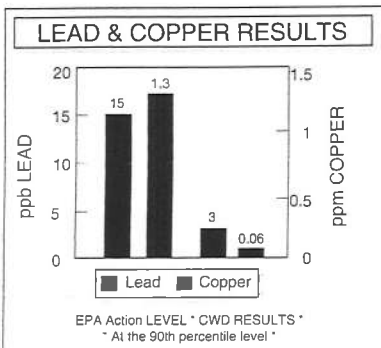
	MCL	Violation Yes or No	Average Detected	Range Detected	Source
TTHMs	80 ppb	No	22 ppb	9-30 ppb	By-Product of Disinfection
HAA5s	60 ppb	No	22 ppb	17-35 ppb	By-Product of Disinfection

CWD uses monochloramine to significantly reduce TTHMs and HAA5s and continues to produce high quality, sanitary water.

## CWD's LEAD & COPPER TREATMENT

CWD adds 0.09 to 0.16 mg/L of zinc and from 0.8 to 1.8 mg/L of phosphate to reduce lead and copper leaching from individual home plumbing. This program has been very effective and allowed CWD to become one of the first systems in Vermont to meet the USEPA action level for lead and copper leaching from home plumbing. CWD is required to extensively monitor 56 high risk sample sites for lead.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. CWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components. Lead in drinking water is from materials associated with home plumbing installed prior to 1987. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using your water for drinking or cooking.



In 2007, 1 of 56 sample sites exceeded the USEPA action level for lead. If your house contains leaded solder, flush your tap for 30 seconds to 2 minutes before using the tap water. The next 3 years monitoring cycle begins June 2010.

If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline** or at <http://www.epa.gov/safewater/lead>.

## PHARMACEUTICAL COMPOUNDS AND PERSONAL CARE PRODUCTS (PPCPs)

In 2009, CWD conducted monitoring for 41 of the most common PPCPs, 2 of the most common algal substances detected nationwide, hydrazine and 5 common nitrosamines. The results for all 49 of these substances were none detected at ppt and ppqd levels in CWD water. One of the 49 substances monitored was Bisphenol A (BPA). These results show that CWD water is BPA free!

ppt = parts per trillion or nanograms per Liter (ng/L) or one penny in ten billion dollars or 1 second in 32,000 years.

ppqd = parts per quadrillion or picograms per Liter (pg/L) or one penny in 10 trillion dollars or 1 second in 32,000,000 years.

## CWD's AESTHETIC QUALITY

All of the different types of water quality presented - sanitary, source and DBP - interact and influence one another as well as affecting the aesthetic quality of the water, CWD's challenge - as for all water suppliers - is to manage all these aspects to produce high quality water. After CWD produces the water, it is distributed to 12 municipal water systems within nine served communities, the water systems then deliver the water to you, the consumer. The following table lists CWD aesthetic water conditions. These are parameters that are not based upon human health concerns, but affect how a consumer views their water supply.

AESTHETIC CONDITION	USEPA SECONDARY MCL	CWD TREATED WATER
ALUMINUM	0.20 mg/L	0.062 mg/L (0.036-0.170)
COLOR	15 UNITS	2 UNITS
ALKALINITY	N / A	49 (47-51) ppm AS CaCO <sub>3</sub>
CALCIUM HARDNESS	N / A	45 - 56 ppm AS CaCO <sub>3</sub>
TOTAL HARDNESS	N / A	61 ppm AS CaCO <sub>3</sub> (3.6 GRAINS/GAL.)
CHLORIDE	250 ppm	17 ppm
FOAMING AGENTS	0.5 ppm	LESS THAN 0.1 ppm
TOTAL ORGANIC CARBON (TOC)	N / A	1.84 ppm (1.25 - 2.54)
CONDUCTIVITY	N / A	186 µS/cm (152 - 204)
pH	6.5-8.5 pH UNITS	7.66 (7.46 - 8.09)
TOTAL DISSOLVED SOLIDS	500 ppm	113 ppm
IRON	0.3 ppm	LESS THAN 0.01 ppm
MANGANESE	.05 ppm	LESS THAN .002 mg/L
SODIUM	N / A	7.5 ppm
POTASSIUM	N / A	1.31 ppm
SULFATE	250 ppm	13 ppm
SILVER	0.1 ppm	LESS THAN 0.005 ppm *
SILICA	N / A	1.4 ppm
SILICON	N / A	0.67 ppm
BROMIDE	N / A	LESS THAN 0.010 ppm
IODIDE	N / A	1.00 (0.79 - 1.23)
FLUORIDE ***	2 ppm	0.96 mg/L (.71 - 1.19)
AMMONIUM ION	N / A	0.10 ppm (0.01 - 0.26)

\* may leach from consumer purchased carbon pre-filters.

**NOTE:** Except for bacterial testing and process control testing, all CWD test analyses are conducted by independent certified laboratories. Bacteriological testing is conducted by CWD's on-site State and NELAC Certified Laboratory.

\*\*\* CWD adds 1.0 ppm of fluoride for dental health under the Vermont Department of Health Fluoridation Program.

## ADDITIONAL INFORMATION

CWD contacts: 802-864-7454. [www.cwd-h2o.org](http://www.cwd-h2o.org)

Jim Fay – General Manager  
Dick Pratt- Asst. General Manager/Chief Engineer  
Michael G. Barsotti- Director of Water Quality & Production, [mikeb@cwd-h2o.org](mailto:mikeb@cwd-h2o.org)

USEPA Safe Drinking Water Hotline (provides information on potential health effects and how to lessen infection risk from *Cryptosporidium* and other biological contaminants)  
1-800-426-4791

Vermont 2-1-1, for health and human services information and referral.  
2-1-1

Vermont DEC Water Supply Division  
1-800-823-6500

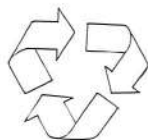
Vermont Dept of Health,  
Division of Environmental Health  
1-802-652-0357

Municipal water systems served by CWD:

VT 0005087	Town of Shelburne	985-5122
VT 0005091	City of South Burlington	864-4361
VT 0005098	Town of Williston	878-1239
VT 0005066	Village of Essex Junction	878-6944
VT 0005065	Town of Essex	878-1344
VT 0005058	Colchester Fire District #1	654-2872
VT 0005060	Colchester Fire District #3	878-4337
VT 0005077	Village of Jericho	899-2938
VT 0020333	Mallets Bay Water Co.	864-7454
VT 0005079	Town of Milton	893-6030
VT 0005102	City of Winooski	655-6422
VT 0005552	Colchester Town	864-7454

## Champlain Water District

403 Queen City Park Road  
South Burlington, VT 05403



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## AVAILABLE CWD PUBLICATIONS

### Watershed Management Program for Source Protection.

Cryptosporidium- The Filtration Challenge, New England Water Works Association (NEWWA) Journal, December 1999.

Applying Self assessment to Filter Optimization, American Water Works Association Opflow, February 1997.

Evaluation of Particle Counters Using Microscopic Counts, Journal of American Water Works Association, December 1997.

Count Matching In-Situ Particle Counts to Scanning Electron Microscopic Counts for Treatment Facility Control, AWWA, 1998 Water Quality Technology Conference.

Why a Water Utility Should Join the National Initiative Entitled Partnership for Safe Water, NEWWA Annual Conference, September 1998 and Reseau Environnement, St. Hyacinthe, Quebec, March 2000, NEWWA Journal, June 2000. AWWA Annual Conference 2004.

Surface Water Source Characterization to Overcome Operational Complacency and Aid Source Delineation, 1999 Water Quality Technology Conference, November 1999.

Investigating and Controlling HAA5s Within a Complex Transmission System, 2000 Water Quality Technology Conference, October 2000.

Exploring the Interrelationship of Water Quality Standards, Source Protection and Wastewater Treatment in Northwestern Vermont, AWWA Source Protection Conference, January 2001.

Modeling Storage and the Inlet Reconfiguration, AWWA International Retention Time Management Symposium 2002.

Investigating a Stand Pipe Mixing System as a Tool for Managing Retention Time and DBP Formation, 2003 Water Quality Technology Conference, November 2003.

CWD Lead Public Information Flyer.

Partnering to Advance Source Protection within the Storm Water Arena, 2005 AWWA Source Protection Conference, January 2005.

Parent and Consecutive System Considerations in a Regional Municipal Water District in Northwestern Vermont, 2006 NEWWA Water Quality Symposium, May 2006.

Secondary Disinfection, 2008 Green Mountain Water Environment Association Spring Meeting, March 2008.

Long Term Experience with Conventional Filtration, 2008 NEWWA Water Quality Symposium, May 2008.

The Role of Water Quality and Operational Decision Making in Implementing a Load-shed Program, 2009 NEWWA Water Quality Symposium, May 2009.

## Municipal Public Utilities

### “Watch Program”

We are requesting the public to voluntarily set up a public utilities infrastructure “WATCH PROGRAM” modeled after the success of existing Neighborhood Watch programs.

We are asking the public to report an suspicious activity to their local police department. Examples would include unauthorized use of fire hydrants, or trespassing in water or wastewater related treatment facility areas, such as storage tanks. This type of public surveillance will reduce the costs associated with vandalism, as well as further enhance overall security.

Any type of non-emergency questions can be referred to your local public works director with the member communities, or the Champlain Water District’s General Manager. We thank you for your help in assisting us in enhancing public safety and security.

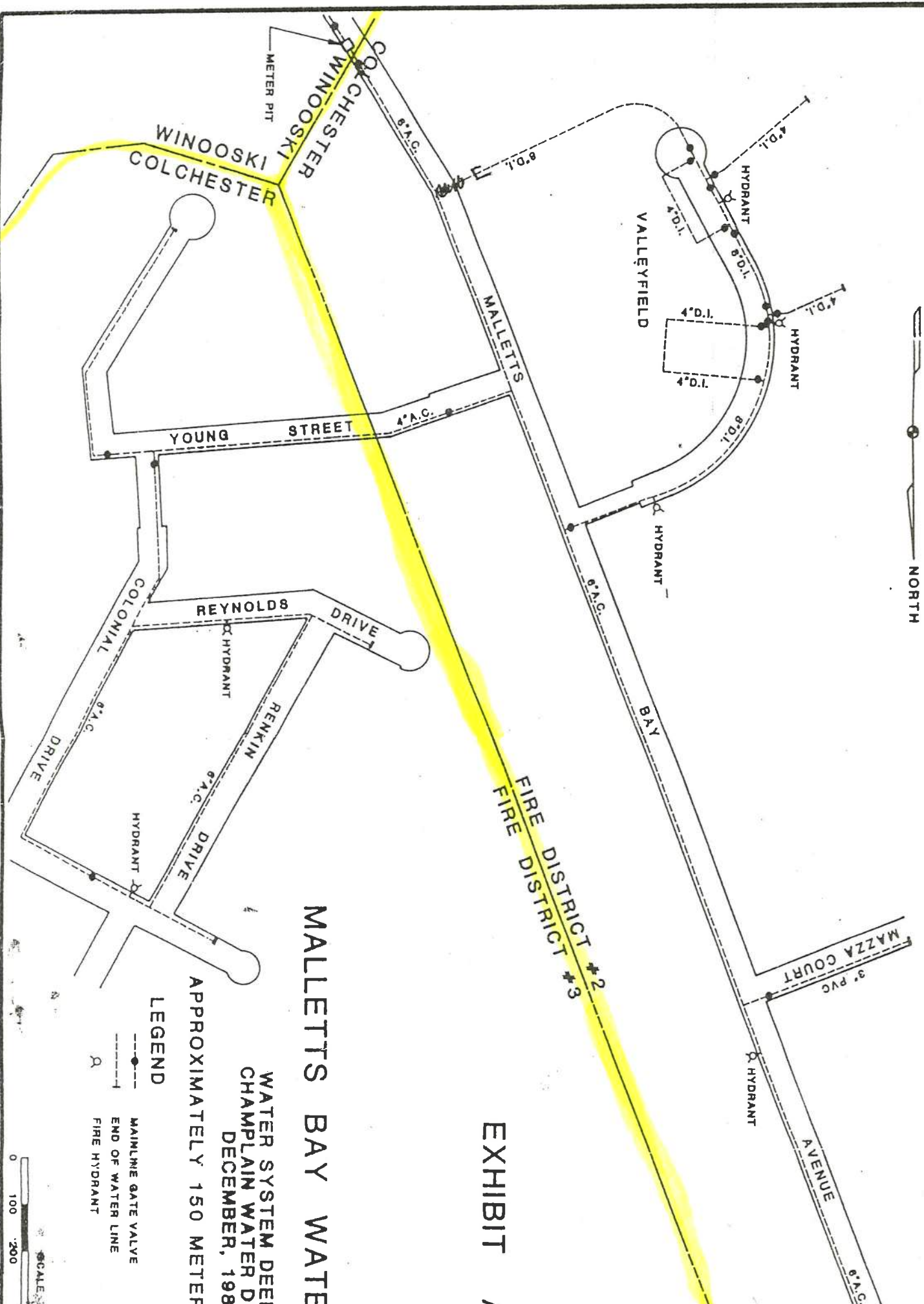
This announcement is provided by the Champlain Water District in conjunction with the following communities: South Burlington, Shelburne, Essex Town, Essex Junction, Williston, Colchester, Winooski, Milton, and the Village of Jericho.

Please open to find Champlain Water District’s latest water quality report.

**Employers should provide enclosed information to their employees and landlords to their tenants.**

Extra copies are available at no charge by contacting CWD or CWD served systems.

## **Attachment # 2**



NORTH

# EXHIBIT A

## MALLETTS BAY WATER

WATER SYSTEM DEED  
CHAMPLAIN WATER DISTRICT  
DECEMBER, 1988

APPROXIMATELY 150 METER

### LEGEND

- MAINLINE GATE VALVE
- END OF WATER LINE
- FIRE HYDRANT



**Attachment # 3**

## MEMORANDUM

To: Bryan Osborne, Director of Public Works  
From: Daniel Richardson, Legal Counsel  
Date: February 4, 2010  
Re: Response to January Memo and Questions on Water Lines

Thank you for your memo in response to my December memorandum on water powers among municipalities. I appreciate the maps that you provided me and the delineation between the various fire districts in Colchester. While it clarifies and corrects some of the factual misperceptions I had in my original memo, it does not affect my legal analysis.

Let me begin with a bit of background and principles that I gleaned from my research:

- Towns have the power to develop water and sewer systems (24 V.S.A. §§ 3301, 3502);
- This power is non-exclusive, meaning that competing water companies can provide water in a given area, and water service is not a monopoly (see 24 V.S.A. § 3305, Chapter 95);
- Although non-exclusive, customers, once established, usually must maintain their lines with the specific water company (24 V.S.A. § 3315); and
- Statute and equitable principles protect a water company's lines from interference (see 24 V.S.A. § 3307).

From these principles, the issues grow muddier. My understanding is that the history of water works in Vermont has been one of need rather than choice. Water companies, fire districts, and municipal water works have arisen from specific needs, and residents rarely have the choice of one, let alone multiple water suppliers.<sup>1</sup> Therefore, the majority of the case law and statutes appear to address or be designed to facilitate the sale and exchange of water where one entity is willing to expand into a new area. There is very little law that speaks to the regulation and cooperation that must exist between multiple water suppliers covering the same area. If my memos or advice appear to be hedging, it is because the law in this area is not particularly well developed, and my analysis is an attempt to synthesize what exists with basic legal principles likely to be raised.

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<sup>1</sup> Currently, several condominium developments around Okemo Mountain are trying to establish water companies or fire districts to take control of their water supply. This project arose out of the Town of Ludlow's refusal or inability to run water lines from the Town to the condos. As a result the condos relied upon a tank that their developer had built, but which was now failing and leaving them without a water supply.

## **Attachment # 4**

TARRANT, GILLIES, MERRIMAN & RICHARDSON

44 EAST STATE STREET

POST OFFICE BOX 1440

MONTPELIER, VT 05601-1440

(802) 223-1112

FAX: (802) 223-6225

GERALD R. TARRANT  
PAUL S. GILLIES  
CHARLES L. MERRIMAN  
DANIEL P. RICHARDSON

SARAH R. JARVIS

**RECEIVED**

April 15, 2010

APR 16 2010

Al Voegele, Town Manager  
Town of Colchester  
P O Box 55  
Colchester, Vermont 05446

TOWN MANAGER'S OFFICE

Re: Champlain Water District Deed and Colchester Water Tower Bill of Sale

Dear Al:

I have had the opportunity to review the contracts and discuss them in detail with Gregg Wilson, who represents the Champlain Water District.

Gregg and I agree that the agreements satisfy the Town and the Water Districts' stated goals of transferring the G.B.I.C. water tank to the Water District and the Colchester and Mallets Bay Water Companies to the Town.

Since neither Gregg nor I have reviewed the primary documents detailing the holdings of the Mallets Bay or Colchester Water Bay Companies, we are relying on what the Town and the Water District have compiled to accurately describe the holdings of both companies. I understand from your e-mail that the Town has reviewed these descriptions and that they accurately reflect the lines and property holdings of both companies.

In the event that there has been some oversight, my reading of the Quit Claim Deed is that the general release language and broad description of the companies would bring in any of the companies' holdings that are not listed in the more detailed sections of the deed. In other words, the agreement intends to convey all of the companies' holdings regardless of whether they are listed specifically or not. Gregg confirmed this understanding and stated that his understanding was that the Water District intended to give all of the property and lines owned by both companies to the Town and that any omission was accidental and would be included if found. In light of this language and understanding, I have no issues with the agreements as drafted.

Given that the issues have been addressed and the form is satisfactory to effectuate the change, the execution of these agreements falls to the Town and the Water District. Since there is no money being exchanged, I do not believe that there has to be a formal closing, but I am available if you want a single meeting with the attorneys present to make the mutual transfers.

Al Voegele  
April 15, 2010  
Page 2

Please let me know if you have any further questions or need anything else from my office to effectuate the transfer.

Best,

A handwritten signature in black ink, appearing to read "D. Richardson".

Daniel P. Richardson, Esq.

DPR/dp

## **Attachment # 5**

**COLCHESTER TOWN WATER SYSTEMS  
BUDGET PROPOSAL  
JULY 1, 2010 - JUNE 30, 2011**

ACCOUNT NUMBER	ACCOUNT	ACTUAL 2008-2009	PROPOSED BUDGET 2009-2010	EXPECTED ACTUAL 2009-2010	PROPOSED BUDGET 2010-2011
<b>REVENUE</b>					
	<u>WATER SALES</u>				
5000	RESIDENTIAL	29,219	32,155	32,500	34,650
5010	COMMERCIAL	98,048	94,830	98,850	103,625
	TOTAL WATER SALES	127,267	126,985	131,350	138,275
5020	PRIV. HYDRANT, SPRINKLER SERVICES	4,670	4,750	4,670	4,750
5030	SERVICE WORK	1,082	1,200	1,050	1,200
5040	BACKFLOW DEVICE TESTING	3,410	4,300	3,410	3,500
5050	CONNECTION FEES	3,000	10,000	9,750	3,000
5060	INTEREST EARNED	87	150	50	50
5070	PENALTIES	514	500	525	500
5080	MISCELLANEOUS	0	100	0	50
<b>TOTAL REVENUE</b>		<b>140,030</b>	<b>147,985</b>	<b>150,805</b>	<b>151,325</b>

**COLCHESTER TOWN WATER SYSTEMS  
BUDGET PROPOSAL  
JULY 1, 2010 - JUNE 30, 2011**

ACCOUNT NUMBER	ACCOUNT	ACTUAL 2008-2009	PROPOSED BUDGET 2009-2010	EXPECTED ACTUAL 2009-2010	PROPOSED BUDGET 2010-2011
<b>EXPENSES</b>					
6000	<u>OFFICE</u>				
A	OFFICE SUPPLIES	46	250	175	250
B	POSTAGE	969	1,250	1,150	1,250
C	BILLING FORMS	0	500	260	400
	TOTAL OFFICE EXPENSES	1,015	2,000	1,585	1,900
6010	COMPUTER SUPPORT SERVICES	27	100	35	50
6030	PUBLIC INFORMATION	98	225	125	150
6040	<u>PROFESSIONAL SERVICES</u>				
A	AUDIT	0	1,200	750	750
B	ENGINEERING	0	0	0	500
C	LEGAL	0	500	1,200	1,000
D	CWD MANAGEMENT FEE	19,248	19,950	19,050	16,200
	TOTAL PROFESSIONAL SERVICES	19,248	21,650	21,000	18,450
6050	WATER SUPPLY PERMIT FEE	1,510	1,700	1,650	1,650
6060	<u>DEBT SERVICE</u>				
A	PRINCIPAL ON LT DEBT	2,280	2,280	2,280	2,280
B	INTEREST ON LT DEBT	1,657	1,585	1,581	1,505
	TOTAL DEBT SERVICE	3,937	3,865	3,861	3,785
6070	<u>SALARIES</u>				
A	CWD SALARIES	19,505	16,885	16,750	17,675
B	CWD OVERTIME	2,969	1,500	1,750	1,500
	TOTAL CWD SALARIES	22,474	18,385	18,500	19,175
6080	EMERGENCY ON-CALL	2,400	2,630	2,410	2,475
6090	WATER PURCHASE- CWD	58,464	76,000	73,500	76,100
7000	<u>DISTRIBUTION MATERIALS</u>				
A	SERVICE BRASS	122	150	150	150
B	DISTRIBUTION MATERIALS	2,845	800	725	750
C	FIRE HYDRANTS	496	2,500	2,200	2,300
D	METERS	3,096	2,500	5,475	1,900
E	PIPE	457	200	260	200
F	RESTORATION MATERIALS	3,455	2,500	2,500	2,500
G	MARKING PAINT	20	50	25	50
	TOTAL DISTRIBUTION MATERIALS	10,491	8,700	11,335	7,850

COLCHESTER TOWN WATER SYSTEMS  
BUDGET PROPOSAL  
JULY 1, 2010 - JUNE 30, 2011

ACCOUNT NUMBER	ACCOUNT	ACTUAL 2008-2009	BUDGET 2009-2010	ACTUAL 2009-2010	BUDGET 2010-2011
<b>EXPENSES- CONTINUED</b>					
7010	<u>EQUIPMENT RENTAL</u>				
A	VEHICLES- CWD	4,260	3,480	3,480	3,180
B	CONTRACTORS	24,466	3,000	3,000	3,000
	TOTAL EQUIPMENT RENTAL	28,726	6,480	6,480	6,180
7020	MISCELLANEOUS	0	250	150	200
7030	ENCUMBERED CASH RESERVES	0	6,000	6,000	5,000
7040	2008-2009 DEFICIT REIMBURSEMENT	0	0	0	8,360
<b>TOTAL EXPENSES</b>		<b>148,388</b>	<b>147,985</b>	<b>146,631</b>	<b>151,325</b>

## **Attachment#6**

## COMPARATIVE RETAIL WATER RATES

Survey Compiled December 2009

The following list represents the cost per 1,000 gallons and the annual cost for the State of Vermont average household occupancy times 75 gallons per day per person for an average household usage of 71,000 gallons per year. The annual cost of water reflects individual characteristics of the communities water rates, i.e. any base rate per quarter, incremental rates based upon usage, or any minimum charges.

Water System	Total Cost per 1,000 Gallons (Including any Base Rates)	Annual Cost Average Family
CWD Wholesale	\$1.60	\$113.60
<b>Town of Williston</b>	<b>\$ 2.73</b>	<b>\$ 193.95</b>
<b>City of South Burlington</b>	<b>\$ 2.76</b>	<b>\$ 195.96</b>
<b>Colchester Fire District #1</b>	<b>\$ 2.81</b>	<b>\$ 199.51</b>
<b>Colchester Town</b>	<b>\$ 2.89</b>	<b>\$ 205.19</b>
<b>Malletts Bay Water Company</b>	<b>\$ 2.89</b>	<b>\$ 205.19</b>
<b>Village of Jericho</b>	<b>\$ 2.99</b>	<b>\$ 212.32</b>
<b>Village of Essex Junction</b>	<b>\$ 3.21</b>	<b>\$ 227.91</b>
<b>Town of Milton</b>	<b>\$ 3.41</b>	<b>\$ 242.40</b>
<b>Colchester Fire District #3</b>	<b>\$ 3.44</b>	<b>\$ 244.10</b>
Colchester Fire District #2	\$ 3.55	\$ 252.05
<b>Town of Essex</b>	<b>\$ 3.70</b>	<b>\$ 262.70</b>
City of Burlington	\$ 3.85	\$ 273.35
<b>Town of Shelburne</b>	<b>\$ 4.94</b>	<b>\$ 350.74</b>
<b>City of Winooski</b>	<b>\$ 5.08</b>	<b>\$ 360.68</b>

**Bold print denotes CWD served water systems.**

Note: The annual average cost of water is \$241.72 for the twelve CWD served municipal water systems for a family using 71,000 gallons per year. Of this \$241.72 average annual family cost, \$113.60 (47%) is paid to CWD for the uniform wholesale purchase price, and the remaining dollars is retained by the respective CWD served water system.